

DAILY LOG

SEALAB II

B.L. CANNON  
USNMDL

7530-222-3521  
FEDERAL SUPPLY SERVICE  
(GPO)



THIS LOG BEGON 2 July 1965

2 July 1965 - A.L. ENROUTE TO LONG BEACH

3 July - X " "

4 July - X " "

5 July - X " "

6 July - A.L. ENROUTE TO LONG B.

7 July - X " "

8 July - REPORTED TO VISITOR CONTROL  
AT NOTS ANNER, L.B., 0650.

MADE CONNECTION WITH SEALAB PERSONNEL  
AT NOTS DIVING LOCKER. SPENT DAY  
GETTING ORGANIZED, LOOKING OVER  
SEALAB II, ETC, SECURED WORK AT  
1600.

M. LEAGE ON ARRIVAL AT LONG BEACH,  
31,609

9 July - REPORTED FOR WORK @ 0730 -  
STARTED DAY WITH LECTURE BY  
HOWARD MACWAY, SENIOR NAVAL ARCHITECT  
ON COMPLETE DETAILS OF SEALAB II.  
LECTURES CONTINUED ALL DAY.  
SECURED AT 1600 FOR THE DAY.

10 July - SATURDAY -  
DEPARTED HOTEL AT 1530 FOR  
LOS ALAMITOS NAS. TO UNLOAD  
2 PLANE LOADS OF SEALAB II GEAR  
FROM MDL. TOOK GEAR TO NOTS  
ANNER, TERMINAL ISLAND.  
SECURED WORKING PARTY AT 1900.

11 July - SUNDAY -  
HOLIDAY ROUTINE, NO WORK.

12 July - MONDAY -  
0700 - REPORTED FOR WORK -  
DAY SPENT GOING OVER DETAILS,  
DIVE BILLS, ETC OF SEALAB II. MR.  
MACWAY PRESIDING + LECTURING.  
SECURED WORK AT 1600



13 July - TUESDAY

0700 - REPORTED FOR WORK.

ALL SEALAB PERSONNEL WENT TO SHEPHERD WHERE SEALAB II IS, SPENT DAY TRACING VARIOUS SYSTEMS. TALKED TO TOM WHEELER, NOTS INSTRUMENTATION ENGR, ABOUT VARIOUS COMMUNICATION SYSTEMS. TALKED TO BILL CALPEPPER + BOB PORTER, MDL. SECURED WORK AT 1600.

14 July - WEDNESDAY

0700 - REPORTED FOR WORK.

DAY SPENT STUDYING SYSTEMS + DETAILS OF SEALAB II. MR. MACWAY STILL INSTRUCTING. SECURED WORK AT 1530.

15 July - THURSDAY

0700 - REPORTED FOR WORK.

SPENT THE DAY GOING OVER THE VALVE OPERATING CHART. QUIZ IN THE AFTERNOON. SECURED WORK AT 1530.

16 July - FRIDAY

0700 - REPORTED FOR WORK

DAY SPENT STUDYING SYSTEMS OF SEALAB II, GOING OVER LOCATIONS + OPERATIONS, ETC. SECURED WORK AT 1600

17 July - SATURDAY

REGULAR WEEKEND ROUTINE

18 July - SUNDAY

REGULAR WEEKEND ROUTINE

19 July - MONDAY

0700 - REPORTED FOR WORK -

ASSIGNED TO BE ELECTRICAL SPECIALIST ON TEAM 1. SPENT HALF DAY IN S.L. II GETTING ORIENTED WITH RESPECT TO ELECTRICAL SYSTEM. OTHER HALF DAY SPENT ORGANIZING LECTURE TO GIVE TRAINING TEAM BRAVO. SECURED AT 1600.

20 July - TUESDAY

0700 - REPORTED FOR WORK

GAVE LECTURE ON SEALAB II POWER SYSTEM TO TEAM BRAVO ALL MORNING. TRIED ON NEW WETSUIT AFTER LUNCH. PANTS 3 IN. TOO LONG. OTHERWISE GOOD FIT. 3/8 IN. LOOKS REAL THICK. VERY HEAVY, TOO. SECURED WORK AT 1400.



21 July - Wednesday

0700 - Reported for work

Temporary Pass has expired, little trouble with security due to expiration of clearance but by noon clearance in thru 10-11-65. Spent the morning helping indoctrinate the B team inside the SEALAB. Scaffolding is up for Friday's christening. Undersecretary and daughter to do honors. No word yet on where everyone will be placed. Afternoon spent at U.S. Divers 3323 W. Warner Rd, Santa Ana getting wet suits pants taken up. Tommy Thompson, U.S. Divers took us thru the whole operation, very nice to us, 115 employees. Most activity was building wet suits. Secured work at 1700.

22 July - Thursday

0700 - Reported for work

Word passed at morning meeting about press conference Friday at 0930. Green with SEALAB patch on left sleeve. Did some inventory work aboard cat. Meeting at 1300. Carpenter says Anderson off team as subject. Tuck replaces him on team 1, PA Wells replaces him as subject. Made SEALAB look inhabited (dishes out, beds made, etc) for

visitors looking thru the ports Friday. Christening at 1430, should last 1 hour. Secured work at 1600.

23 July - Friday

0800 - Reported for work.

Briefing by Capt. Nelson about press conf. at 0930, what to expect, etc.

0930 - Press conference. Lots of press, TV, cameras galore. Estimate 30 newsmen. First team named:

Cannon, Carpenter, Clarke, Coffman, Eaton, Jöhler, Murray, Skidmore, Sonnenburg, Tockfield. Second team will be named about midway of first run.

0230 - Christening ceremony. Miss Heidi Nitz, Guest of Honor. All subjects introduced to guests.

Secured at 1600.

24 July - Saturday  
Routine Holiday

25 July - Sunday  
Routine Holiday



26 July - MONDAY

0700 - Reported for work

Day spent on odd jobs on SEALAB, carrying equipment aboard S/V, etc.

Secured work at 1600.

27 July - TUESDAY

0700 - Reported for work

Moving gear aboard S/V took nearly all morning. Afternoon spent in inventorying 20 new cylinders (10 72's + 10 42's) stenciling them, marking 10 new regulators, putting them on bottles + checking them out. Secured work at 1600.

28 July - WEDNESDAY

0700 - Reported for work

Spent morning storing Lithium Hydroxide aboard SEALAB II. ARAWAK'S came in. 4 units, 2 vacuum pumps, 2 pressure pumps, all have 3 phase 1 HP 940 or 208. In afternoon met Al Krasberg and saw the O<sub>2</sub> units. Showed me how to cal them. Went to dental check, found out I have to get my impacted wisdom tooth pulled right away. Navy will not do it so Dr. Sonnenburg made an appointment for me with an

oral surgeon who cut the tooth out. Cost \$48.<sup>00</sup>

Secured work at 1530 to leave for the dentist.

29 July - THURSDAY

Took day off, sick leave, because I got a wisdom tooth cut out on Wednesday and didn't feel too hot.

30 July - FRIDAY

Took day off, sick leave. At 1500 got call from Small, WNC to see Dr. Sonnenburg about eye exam on the Haven, USN Hospital ship. Drove out to base got Dr. Sonnenburg and went to the Haven. The ophthalmologist had just left so Monday at 0800 I will be back. The results of the eye exam (periphery tests) will be called to Dr. Bond in DC. Something to do about the waiver. Dr. Sonn. says no sweat fail as I'm concerned.

31 July - SATURDAY

0900 - Reported for work. Al Krasberg gave me an explanation of his PO<sub>2</sub> sensor. Also details on how to cal, etc. He is sending some spare parts and a circuit diagram. Seems to know his stuff. ~~He~~ Helped



LAST THE ELECTRICAL CABLES IN THE UMBILICAL TOGETHER. THE GAS HOSES BALLOONED IN SEVERAL PLACES, ARE BEING REPLACED, PERHAPS BY A CLEAR VINYL WITH NYLON LACING IMBEDDED IN IT.

SECURED WORK AT 1430. ✓

1 AUGUST - SUNDAY

1300 - REPORTED TO SEALAB FOR SYSTEM CHECKOUT ON DOCK. MEMBERS OF 1<sup>ST</sup> TEAM PRESENT WERE CARPENTER, EATON, TICKFELD, JENNER, CANNON. WE ENTERED THE LAB, CLOSED ALL HATCHES & PRESSURIZED TO 5 PSI. RAN ELECTRICAL SYSTEM CHECKOUT SWITCHING FROM ALTERNATE TO NORMAL POWER. NO PROBLEMS ENCOUNTERED IN ELECTRICAL BUT SOME LEAKING VALVES WERE ENCOUNTERED. THEY WILL BE REMOVED & RESEATED.

WATER ROOM TEMP WENT FROM 84 TO 92°F, STABILIZED. KRASBERG OUTLET NOT WIRED YET BUT WILL BE. KRASBERG PERFORMED SATISFACTORILY, WAS NOT CONNECTED TO SOLENOID.

SECURED TESTING AT 1700. ✓

2. AUGUST - MONDAY

0700 - REPORTED FOR WORK

0800 - DR. SONNENBURG AND I WENT TO THE HAVEN FOR MY PERIPHERY TESTS. THE OPHTHALMOLOGIST'S OPINION WAS THAT MY VISION DID NOT HINDER MY DIVING ABILITY. DR. BOND IS IN WASHINGTON SEEING ABOUT THE WAIVERS FOR ME, TOLBERT, CLARKE & FLOETHSIE.

AFTER EYE EXAM, WENT ABOARD S/V TO PREPARE O<sub>2</sub> CLEAN TOOL KIT FOR BOTTOM. WENT TO DISBURSING & DREW \$112.00 ADVANCE PER DIEM.

SECURED WORK AT 1300. ✓

3 AUGUST - TUESDAY

0700 - REPORTED FOR WORK

IN THE MORNING WORKED ABOARD THE SUPPORT VESSEL GETTING STUFF STOWED. JENNER & I TOOK KRASBERG, INVERTER AND ARAUAK COMPRESSORS TO DIVING LOCKER FOR PRESSURE TEST. WILL DO AT 0800 WEDNESDAY.

HELPED SQUARE AWAY CLASS ROOM FOR FILM ON WEDNESDAY

SECURED WORK AT 1600.



4 AUGUST - WEDNESDAY

REPORTED FOR WORK AT 0700 -

AT 0800 WENT TO LBNS DIVING LOCKER TO OBSERVE INSTRUMENTS BEING PRESSURE TESTED. ALL PASSED THE TEST SATISFACTORILY. WORKED ON GETTING THE ARAWAK LINED UP FOR A SWIM SESSION NEXT WEDNESDAY. SECURED AT 1600. PTC ARRIVED

5 AUGUST - THURSDAY

0700 - REPORTED FOR WORK

SPENT THE DAY GETTING STUFF STOWED ABOARD S/V AND WORKING ON THE ARAWAK Hoekup. LOT OF TIME CONSUMED EACH DAY JUST GETTING PARTS. SECURED AT 1600.

6 AUGUST - FRIDAY

0700 - REPORTED FOR WORK

WORKED ABOARD THE S/V STOWING CORALGROWERS FOR SONLAB. IT APPEARS MUCH CONSIDERATION BEING GIVEN TO MOVING SITE TO SAN CLEMENTE ISLAND. UNOFFICIAL WORD IS THAT FIRST TEAM WILL DIVE ABOUT AUGUST 23. HOPE SO. SECURED AT 1600

7. AUGUST - SATURDAY

0900 - REPORTED FOR WORK.

SPENT DAY GETTING ARAWAK ALL NOOKED

UP FOR OPERATION. WIRED THEM UP FOR 220 3 $\phi$ . PLAN FOR OPERATION CALLS FOR 1 ARAWAK TO BE USED WITH THE OTHER ONE ON STANDBY. A CROSSOVER VALVE WOULD PUT SECOND UNIT ON LINE TO DIVER. SECURED WORK AT 1530.

8 AUGUST - SUNDAY

HOLIDAY ROUTINE

9 AUGUST - MONDAY - 0700 - REPORTED FOR WORK

DR'S JIM MILLER, RADLOFF + BOWEN ADMINISTERED AUDIO, VISUAL, ASSEMBLY + MATH TESTS. DR BOWEN SHOWED ME HIS SOLID STATE RECORDER, ASKED THAT I OVERSEE IT ON BOTTOM, SEND TAPES UP, ETC. IT WILL BE USED BY PERSONNEL DESIRING TO ELABORATE ON WRITTEN SCORING REPORTS. CARPENTER, MAZZONE, MEIKS, ILEY, BARTA, BUSTON WENT TO SAN CLEMENTE TO DIVE ON SITE. MAZZONE HAD TROUBLE AT 204 FT DUE TO MALFUNCTIONING REGULATOR. HE IS OK. 100 FT VISIBILITY WITH DRY SAND BOTTOM.

SECURED AT 1600. AFTER WORK I WENT TO THE OUTRIGGER TO TALK TO DR. SIM JACOBSEN WHO INVENTED THE ERG RECORDER PACKAGE THAT SOME OF THE DIVERS WILL BE WEARING. SAW THE UNIT. IT CONSISTS OF 8 LEADS WITH CUP ELECTRODES APPROXIMATELY  $\frac{1}{4}$ " DIAM. RUNNING TO WATERPROOF



CONTAINER ABOUT 5" x 3" x 7". THIS CONTAINS A PREAMP, AMP, PWR SUPPLY & STRIP RECORDER, WHICH I DIDN'T SEE. CLAIMS 20 MINUTE RECORDING. PROMISED ME THE SCHEMATICS OF THE WHOLE WORKS.

10 AUGUST - TUESDAY

0700 - REPORTED FOR WORK

TALK ON SHARKS AT 0900 BY DR PERRY GILBERT, CORNELL. AFTERWARDS WORKED WITH BOB PORTER ON ELECTRICAL HOOKUPS ABOARD S.L.II. CAPT. BOND SAID PLAN IS TO PUT S.L.II DOWN IN LAJOLLA AT LEAST FOR 1<sup>ST</sup> TEAM RUN. IF CONDITIONS TOO BAD FOR DECENT OCEANOGRAPH DATA + EXPERIMENTS PLANNED, MAY MOVE TO SAN CLEMENTE FOR 2<sup>ND</sup> + 3<sup>RD</sup> TEAM RUNS. SECURED AT 1600.

11 AUGUST - WEDNESDAY

0700 - REPORTED FOR WORK

SPENT MORNING WITH BOB PORTER WORKING ON ELECTRICAL HOOKUPS. SPENT AFTERNOON TROUBLE SHOOTING THE DIVER AMPLIFIER WHICH WILL COMMUNICATE WITH THE BELL. REPLACED THE BELL SPEAKER WHICH WAS BAD. THERE IS LOTS OF NOISE PRESENT SOUNDS LIKE AC HUM. THE WIRES ARE UNSHIELDED WHICH MAY BE THE TROUBLE.

SECURED WORK AT 1600

12 AUGUST - THURSDAY

0700 - REPORTED FOR WORK.

MORNING SPENT PUTTING PPS, MK 16 + BATTERIES ABOARD S.L.II. HELPING PORTER CHECK OUT SOME CIRCUITS AND CHECKING THE RELAY-TYPE BATTLE LANTERNS. IT APPEARS THE TEMP. SENSORS ARE BACKWARDS IN THE FREEZER AND REFRIG. LIFE MAN SHOWED ME HOW TO LOAD HIS FIXED CAMERAS + TEST FIRE THEM. MPL GUYS MOUNTED THEIR INTERIOR TV CAMERAS. 4 CAMERAS ARE MONITORED ON CHANNELS 2, 3, 4 + 6. SPENT AFTERNOON WORKING ABOARD S.L.II. SECURED WORK AT 1900

13 AUGUST - FRIDAY

0700 - REPORTED FOR WORK.

SPENT MORNING RIGGING SOME AQUASONICS FOR MK 16 USE AND CHECKING OUT THE SWIMMER INTERCOMS. U.S. DIVERS GAVE ME 4 VALVE ASSYS. GRATIS. IN THE AFTERNOON I WORKED ABOARD THE SEALAB HELPING BOB PORTER. CONNECTED A GROUP WIRE TO THE TV. ALSO GOT FITTED WITH MY NEW WET SUIT MADE BY DICK LONG OF SKINDIVERS UNLIMITED. IT FITS SO SNUG THAT WHEN I ZIPPED THE ANKLE



SHOT A BUBBLE OUT UP TO MY  
ARMPI'S FROM EXACT LEG. SURE IS HARD TO  
GET ON JTHO. SECURED AT 1830.

#### 14 AUGUST - SATURDAY

0900 - REPORTED FOR WORK

THE INDICATOR LIGHTS ON THE FREEZER THERMOSTATIC  
CONTROL ARE MALFUNCTIONING. SPENT MORNING  
TROUBLESHOOTING BUT COULDN'T FIND ANYTHING  
WRONG. THE POWER WAS TURNED OFF SO I  
DIDN'T GET TO CHECK IT OUT LATER. FOUND  
OUT THAT THE 10 CHANNEL EVENT RECORDER IS  
ELECTROSTATIC, GENERATES OZONE AND PROBABLY  
WILL NOT BE ALLOWED TO BE USED.

SECURED AT 1700.

#### 15 AUGUST - SUNDAY

1000 - REPORTED FOR WORK.

BRIEFING BY CDR. CARPENTER REGARDING  
SLIPPAGE OF LEAVE DATE OF S/V. WORD IS  
THAT S/V WILL LEAVE TUESDAY IF PTC  
IS READIED IN TIME. A LOOSE PIPE FITTING  
WAS FOUND ON PTC. MAY HAVE TO REPLACE ALL  
THE PIPING DEPENDING ON X-RAY. DID SOME  
WORK ABOARD THE LAB. SECURED AT 1230.

INDICATOR LIGHT ON FREEZER THERMOSTAT  
IS O.K. NOW.

#### 16 AUGUST - MONDAY

0700 - REPORTED FOR WORK

CARPENTER SAYS 10 CHANNEL EVENT  
RECORDER WILL BE USED UNTIL IT APPEARS  
TO BE CAUSING EXCESSIVE O<sub>3</sub>. IT IS NECESSARY  
FOR IT IS ONLY RECORD OF PO<sub>2</sub> SOLUBILITY VALUE.  
GENERAL WORK ABOARD S/V AND LOADING OF  
GROCERIES ABOARD LAB. SECURED AT 1600.

#### 17 AUGUST - TUESDAY

0800 - REPORTED FOR WORK

ALL VALUES CHECKED ABOARD LAB FOR BALLASTING  
+ TRIMMING. SOME BALLAST WAS SHIFTED FWD,  
ALSO SOME 1500 # ADDED. ONLY ONE LEAK  
FOUND, THE STD PORT COVER IN THE LAB AREA  
LEAKED. TORQUING DOWN ONLY WORSENERED THE  
LEAK. THE EMERGENCY WATER TANK WAS FILLED  
PRIOR TO ~~WATER~~ LOWERING. THE VENTING OVERFLOW  
WORKED GOOD. IN THE AFTERNOON CARPENTER, MAZZONE  
SONENBERG AND SHERRS RODE THE PTC TO CHECK THE  
EMERGENCY RELEASE MECHANISM. HAD TROUBLE WITH  
THE RELEASE PIN STICKING UNTIL THEY PARTIALLY  
FLOODED DOWN THE PTC. USED UP THEIR BOTTOM  
TIME. DEPTH WAS 53 ft BY LEADLINE. AFTER  
SOME TOPSIDE WORK ON THE RELEASE PIN BUSHING,  
ANOTHER RUN WAS MADE WITH TUCKFIELD, MEYER,  
JOHLER + ME. THE PIN RELEASED FINE BUT WE



HAD THE VALVES WRONG AND FREEWHEELED TO THE END OF THE TETHER. WE WERE RAISED, RECEIVED MORE INSTRUCTIONS AND LOWERED AGAIN. THIS TIME WE OPERATED THE ESCAPEMENT CORRECTLY AND COULD LIMIT OUR ASCENT TO ONE NOTCH OF THE ESCAPEMENT WHEEL AT A TIME. THE PRESSURE WAS 260. WE LOWERED PRESSURE TO 140 PSI + TRIED THE FREE-WHEELING. WORKED GOOD. MADE A 2 MIN. STOP AT 10 FT. SECURED AT 2200. THE STAGING VESSEL PULLED OUT TONIGHT, ~~LAB~~ (AQUASONICS [SURFACE UNIT] WORKED OUTSTANDING)

18 AUGUST - WEDNESDAY,

0900 - REPORTED FOR WORK.

LOADED SOME GEAR ABOARD THE LAB, STARTED STOWING + SECURING SOME THINGS. THE LEAKING PORT COVER WAS OPENED AND FAILURE OF GASKET TO BOND TO COVER WAS BLAMED. NEW GASKET AND NEW CEMENT WERE UTILIZED. SECURED WORK AT ~~1600~~ 1700.

19 AUGUST - THURSDAY

0800 - REPORTED FOR WORK

THE LAB WAS CHECKED OUT (VALVES) AND LOWERED IN WATER FOR FINAL BALLAST TRIM. CARPENTER + EATON CHECKED ALL GAS BOTTLES + CONNECTIONS FOR LEAKS. FOUND 2, 1 ON O<sub>2</sub> BANK, 1 ON H<sub>2</sub> BANK. O<sub>2</sub> WAS

REMEDIED BY TIGHTENING FITTING. H<sub>2</sub> WAS BAD BLOWOUT PLUG. FIXED. INTERIOR, IT WAS FOUND THAT NEARLY ALL THE MANIFOLD VALVES LEAKED SLIGHTLY AROUND THE PACKING. H<sub>2</sub> HULL VALVE LEAKS THROUGH THE SEAT. CARPENTER SAYS ALL LEAKY VALVES WILL BE REPLACED IF POSSIBLE. I SECURED WORK AT 1830 BUT LAB WAS PRESSURIZED TO 15 PSI + PUT UNDER TOW BY GEAR AT ABOUT 2130. LEFT LONG BEACH AND PROCEEDED TO SAN DIEGO AS PER ORDERS.

20 AUGUST - FRIDAY

0800 - REPORTED FOR WORK AT SCRIPPS.

A BRIEFING WAS CONDUCTED BY ~~CAPT. NELSON~~, ~~BOND~~ + CARPENTER. EATON, GUTMAN + I HAD TO GO TO NAVAL HOSPITAL FOR MORE PHYSICALS, PSYCHOLOGICAL TESTING + EEG. SECURED AT 1700.

21 AUGUST - SATURDAY

0800 - REPORTED FOR WORK AT SCRIPPS

GENERALIZED BRIEFING + STATUS REPORT GIVEN BY CAPT. NELSON, BOND + CARPENTER. FIRST TEAM ASKED TO RIDE AUV-10 FROM QUIVIRA BASIN TO BERTONE (SV) WITH ADMIRAL SMITH. WE DID. PRESS CONFERENCE HELD ON BOARD S/V WITH ALL QUESTIONS ASKED OF BOND + CARPENTER. INTERVIEWS + PICTURES WERE TO



Follow But No one Approached me for  
either. Some interest shown in Cahip. types,  
I.E. Sonnenburg, Skidmore, Murray + Charles.

Reviewed piping + procedures in P.T.C. Set  
up MK 6 Rig # 8 to be mine. On-off  
valve had bad O-ring. I fixed it, Rig looks  
good enough to dive. Secured at 1830.

Sunday - 22 August

1200 - Reported for work.

First team only met at Schapps pier for  
small boat ride to S/V. supposed to open LAB  
+ stow last personal gear, then pressurize  
for dive. The word is: since the Benthic flooded  
and in lowering, the power vault was cracked  
and damaged, a test of lowering the PTC  
unmanned must be conducted. Also, the <sup>present</sup> site  
is too steep (30-40%) for emplacement so  
a site about 120 ft from the original (1st)  
sink hole site will be used. Visibility ain't  
good, took 6 min for 5 ft silty cloud to  
settle, depth about 195 ft, but it is  
level. Got a briefing from Dr. Miller about the  
sound localization experiments I will run for  
him. Elkins will be real interested in the  
results. Also I will take care of Tolbert's  
flower garden on 1st team.

Carpenter says He's against putting LAB  
down until S/R power is fixed + connected.  
I concur. Looks like Wednesday is the  
occupancy day if nothing else happens bad.  
The LAB will be open tomorrow maybe. Also the  
PTC test will be run Monday.  
Secured at 1700.

23 August - Monday

0800 - Reported for work

Vented the LAB <sup>(left tanks at 10 PSI)</sup> AND ENTERED FOR A  
LAST MINUTE LOADING OF PERSONAL GEAR.  
Lots of water found around forward emerg.  
escape hatch + after main hatch. Tasted it  
and it was fresh. Conclusion: it came from the  
hot water HTR and overflow sloshing of the  
emergency 150 gallon water. Pumped the  
water into buckets and over the side. Loaded  
personal + medical gear aboard +  
stowed. Still no power aboard the LAB so  
Batter lanterns came in handy. Oh, in the  
morning PTC was pressurized to 100 PSI <sup>(unmanned)</sup> AND  
hung on the counterweight system to be lowered  
to bottom for check. The lifting procedure is  
hazardous, 3 restraining lines secured to  
deck cleats just didn't keep PTC from  
swinging badly, and this was in fairly



CALM SEAS. IN MODERATE SEAS IT WILL BE EXTREMELY DIFFICULT + HAZARDOUS TO PUT PTC ANYWHERE ON DECK OF S/V. SOME DIFFICULTY EXPERIENCED IN CHANGEOVER FROM CRANE LIFT TO COUNTER-WEIGHT SYSTEM. ALSO SOME SURGE WAS NOTED DESPITE COUNTERWEIGHT. O-RING GASKETS ON HATCH LEAK, ABOUT 1 PSI/PER SEVEN MINUTES. PTC WAS ONLY LOWERED ABOUT 20 FT, THEN RECOVERED. RECOVERY WAS DANGEROUS BECAUSE OF SWING. AFTER DARK, WHILE I WAS ABOARD THE LAB, PTC WAS CHECKED AGAIN AFTER ADJUSTING WEIGHTS ON THE COUNTERWEIGHT. IN THE RECOVERY, COCCESHELL FELL FROM PHOTO STACK ROOF AND SEVERELY SPRAINED (OR BROKE) HIS ANKLE. LAB WAS BUTTONED UP AND TANKS EQUALIZED TO INTERIOR (ABOUT 1-2 PSI FINAL PRESSURE) SECURED AT 2100. (

24 AUGUST - TUESDAY

0900 - REPORTED FOR WORK

OPENED UP THE LAB FOR FINAL TIME BEFORE PRESSURIZATION. WENT ABOARD FOR SYSTEM CHECKOUT. BOB PORTER SPLICED ON 300 FT OF POWER CORD TO THE 50 FT PIGTAIL YESTERDAY TO ENABLE POWER VAULT TO BE CONNECTED AFTER LAB IS ON BOTTOM. THE UMBILICAL IS HOOKED UP

SO POWER CAME ON AT ABOUT 1045. COMMUNICATIONS ESTABLISHED TO S/V VIA AUDIO AND THE UNSCRAMBLER CKTS. COMMUNICATIONS EXCELLENT QUALITY. ALL CKTS. ENERGIZED EXCEPT HOT WATER HEATER AND SOME MINOR PROBLEMS WERE NOTED. 1. ONE OF THE ARAWAK PUMPS ISN'T PUTTING OUT CORRECT PRESSURE. 2. WHEN THE D/H MACHINE CKT WAS ENERGIZED A FLASH WAS NOTED IN THE ENTRY AREA. I IMMEDIATELY THREW THE BREAKER BUT IT HAD ALREADY TRIPPED. A MAKE SHIFT BLOWER FOR THE WETSUITS HAD BEEN PLUGGED INTO THIS CKT, AND WAS INADVERTENTLY WIRED FOR A SHORT CIRCUIT. THE BLOWER IS REMOVED NOW. FROST FIXED THE ARAWAK. ALL OTHER ELECTRICAL STUFF CHECKED AT FINE. I TOOK ABOUT 4 READINGS FOR THE LOG. DR MILLERS GEAR IS ABOARD EXCEPT THE REDUCERS WILL BE LOWERED WET. CILPEPPER PUT UP THE BRACKET FOR TOLBERT'S PLANT EXPERIMENT. I PUT THE MARIGOLDS ABOARD. I CHECKED OUT THE KRASBERG, + DE-ENERGIZED IT. IT WILL BE CALIBRATED ON THE BOTTOM. THE BB HTS. WERE SET AT 70°, FREEZER FOR -5°, REFRIG FOR 40°, AND THE LAB WAS BUTTONED UP. FLOODING OF TANKS 1 + 3 STARTED AT 1745. AFTER AN HOUR IT WAS APPARENT THAT TANK 3 (AFT) WAS FILLING



FASTEST. THIS WAS PROBABLY DUE TO THE FACT THAT THE LAB WAS TRIMMED DOWN A LITTLE STERN HEAVY AND ALSO THE STERN WAS INTO THE SWELLS. SEWRED AT 1900 WITH FLOODING STILL GOING ON.

25 AUGUST - WEDNESDAY

0800 - REPORTED FOR WORK AT SCRIPPS PIER. BRIEFING BY CARPENTER. IT SEEMS THE LAB FLOODED DOWN AT THE STERN WITH TANK 3 FILLING LONG BEFORE TANK 1. THE UP ANGLE CAUSED A WATER BLOCKAGE OF THE A10 & A1 VALVES. SO TANK 1 COULD NOT FILL. TO REMEDY THIS, ALL VENT VALVES EXCEPT A1 & A10 WERE CLOSED, B1 & B2 WERE OPENED AND THE WATER WAS BLOWN OUT OF THE VENT LINES. ALSO, OVER NIGHT THE LAB DROPPED FROM 105 PSI TO 47 PSI. THE PORT COVER GASKETS ARE LEAKING AND THE EQUALIZING TUBES ARE LETTING THE GAS OUT. SEWRED AT 1600

26 AUGUST - THURSDAY

0800 - REPORTED FOR WORK.

FIRST TEAM BRIEFING ON S/V. SEALAB WILL BE LOWERED TODAY. TOMORROW THE PTZ & POWER HIVE WILL BE LOWERED. ENTRY SHOULD BE ON SATURDAY MORNING. SEALAB II

WAS LOWERED TO BOTTOM AT  $\approx$  3 PM. A STOP AT 165 FT TO CAP OFF THE EQUALIZING TUBES IN THE PORTS WHICH WERE LEAKING HE. THE COUNTERWEIGHT WORKED OUTSTANDING. WALLY JENKINS MADE AN 85 FT DIVE ON THE LAB AND REPORTED IT STEADY AS IF ON THE BOTTOM, IN SPITE OF 4-5 FT SWELLS ON THE SURFACE. SEWRED AT 1630.

27 AUGUST - FRIDAY

0800 - REPORTED FOR WORK

FIRST TEAM ORGANIZATION BRIEFING, PLANNING AS TO TASKS PERFORMED BY ORIGINAL ENTRY TEAM & VARIOUS JOBS TO BE DONE. JOLLER & I MOUNTED A KRAIBERG IN THE PTZ AS A PO<sub>2</sub> SENSOR. THE POWER VAULT (NICE STURDY STEEL MODEL) WAS LOWERED, APPARENTLY SAFELY. NEW O-RINGS INSTALLED ON PTZ HATCH. SEWRED AT 1630.

THIS LOG WILL BE RESUMED AFTER I GET BACK OFF THE BOTTOM.



THE FOLLOWING IS A WORD FOR WORD  
COPY OF MY BOTTOM LOG.

28 AUGUST - SATURDAY

0800 - REPORTED FOR WORK AT SCRIPPS. WENT ABOARD THE BERKONE AND SET UP MY DIVING RIG (MK 6 WITH 75/25  $\text{HeO}_2$ ). ABOUT 1000 DR. JEM-JACOBSEN STARTED PUTTING THE ELECTRODES ON EATON + ME FOR THE BOTTOM EEG RECORDINGS. THEY WERE GLUED ON TO THE HEAD IN ABOUT 6 PLACES WITH THE WIRES GLUED TO THE NECK + RUNNING DOWN + OVER THE LEFT SHOULDER TO A MINIATURE PLUG. 2 ELECTRODES WERE WIRED TO THE CHEST AREA FOR EKG'S. THE ELECTRODES ARE SUPPOSED TO LAST FOR 5 DAYS. TOOK 1 1/2 HOURS TO INSTALL ELECTRODES.

1130 - FINAL TALK BY DR. BOND EMPHASIZING DIVER SAFETY AND STRESSING IMPORTANCE OF THE MISSION.

1145 - FIRST TEAM STANDS FOR FINAL PICTURES. ABOUT 30 PHOTOGRAPHERS AT LEAST. AFTER THIS WE WENT BELOW TO SQUARE AWAY OUR DIVING GEAR FOR THE DIVE. WORD IS PASSED WE WON'T DIVE UNTIL THE PORTABLE BELL IS CHECKED OUT AND SECURED AT 80 FT. AS AN EMERGENCY DECOMPRESSION STAGE. THE CHOW HALL GRACIOUSLY OFFERED 1<sup>ST</sup> TEAM

LIVER ON THE HOUSE. WE ACCEPTED. AS USUAL CHOW WASN'T VERY GOOD.

1343 - ENTRY TEAM (CARPENTER & EATON, TEAM 1, TUCKFIELD & CANNON, TEAM 2) ENTERED WATER.

TEAM 1 OPENED SEALAB HATCH AFTER BLOWING SKIRT AND ENTERED. TUCK + I OPENED THE PTC HATCH. I CLIMBED UP INSIDE, DROPPED THE MERCURY VAPOR LAMP DOWN TO TUCK + TURNED IT ON TO BE USED AS A BEACON. TURNED THE SCRUBBER ON FOR ABOUT 5 MINUTES TO MIX THE  $\text{He}$  AND  $\text{O}_2$ . FROM THE PTC, THE SHARK CAGE WAS CLEARLY VISIBLE, LIGHTED BY THE AFT DIVING LIGHT. WE COULD HEAR A ROAR AS THE SKIRT WAS BLOWN. THE PTC IS ABOUT 30 FEET AFT AND SLIGHTLY TO PORT OF SEALAB. FROM THE AFT PORT HOLE THE MERCURY VAPOR LAMP IS CLEARLY VISIBLE AND VERY REASSURING. BOTTOM VISIBILITY IS GOOD BUT VERY LITTLE SURFACE LIGHT IS EVIDENT. BOTTOM IS FINE MICA SAND, CLOUDS SETTLE IN ABOUT 2 MINUTES. TUCK AND I HOOKED UP THE FRESH WATER LINES AT THE POWER VAULT WHICH IS AMIDSHIPS STBD AND NOT OVER 8 FEET FROM THE LAB. WE TURNED ON 1 EMERGENCY BREATHING BOTTLE, 2  $\text{O}_2$  BOTTLES AND 1  $\text{He}$  BOTTLE. A LOT OF SMALL FISH ARE STARTING TO CONGREGATE AROUND THE



LAB. WE ENTERED SEALAB + STOWED OUR MKG AT 1420. THE LAB IS RESTING ON A SLOPE WITH ABOUT  $10^{\circ}$  UP ANGLE AND  $8^{\circ}$  PORT ROLL. IT IS A LITTLE UNPLEASANT, THE ROLL AND PITCH INCREASED SLIGHTLY THE FIRST HOUR WE WERE ABOARD, AS MEASURED BY A HOME-MADE PLUMB-BOB. THEN IT STABILIZED. THE INCREASE CAUSED YOURS TRULY SOME LITTLE CONCERN WHICH PASSED.

THE OTHER SIX CAME DOWN IN PAIRS. COFFMAN + SONNENBURG, SKIDMORE AND CLARKE, JOHLER + MURRAY.

HOUSE KEEPING SET UP, LOOKS LIKE STOWING MKG WILL BE A MAJOR PROBLEM. THE ENTRY AREA IS WAY TOO SMALL. THE SANITARY DRAIN HOSE ~~ARE~~ IS HOOKED UP BUT MUST BE FLOATING UP FOR GAS ESCAPES FROM THE TOILET IF THE HULL VALVE IS OPENED. THE J-HOWER DRAIN HOSE IS NOT CONNECTED.

EVERYBODY'S APPETITE IS REAL GOOD. MORALE IS HIGH AND THE HIGH SQUEAKY VOICES GET LOTS OF LAUGHS. BUSY WITH STOWAGE, ENGINEERING AND ENVIRONMENT DATA RECORDING, CHECKING OUT EQUIPMENT, ETC. SECURING WORK FOR BED AT 2330. CARPENTER TALKED TO GEMINI-5 JUST AS I WAS

DROPPING OFF TO SLEEP.

29 AUGUST - SUNDAY

0600 - UP AND AT 'EM.

COFFEE, CHOW + GENERAL SMALL TALK, STARTING DAYS WORK @ 0800. NO SURFACE LIGHT VISIBLE. USING DOUBLE 70's + 90's FOR GETTING PRESSURE POTS AND HOOKING UP J-HOWER DRAIN HOSE. ALSO THE SANITARY DRAIN HOSE IS WEIGHTED DOWN SO IT WORKS GOOD NOW. J-HOWER DRAIN HOSE POPPED UP SUDDENLY, CAUSING QUICK GAS LOSS, WATER RISE UP INTO AREA AROUND THE AFT HATCH. CARPENTER SECURED THE HULL VALVE ON DRAIN UNTIL HOSE COULD BE WEIGHTED AGAIN.

TOPSIDE PUMPED COMPRESSED AIR IN UNTIL SKIRT WAS BLOWN AGAIN. BROUGHT  $O_2$  CONCENTRATION UP TO 4.8%. ~~SAFETY~~ THE KRASBERG IS DOING AN EXCELLENT JOB OF MONITORING THE  $PO_2$ . IT IS RIGHT ON THE MONEY WITH CAPT. MAZZONE'S GAS ANALYZER TOPSIDE. IT ALSO BROUGHT THE  $O_2$  UP FROM 4.15% TO 4.25% WITHIN 1 HOUR. THE SOLENOID CHATTERS QUITE A BIT WHICH IS AN IRRITANT. ALL PORT-HOLES ARE OPEN TODAY, BUT WITH NO



LIGHT, THERE'S NOT MUCH TO SEE.  
CAN'T SEE THE BOTTOM FROM THE PORT  
NOTES.

LOTS OF RED ROCK COD AROUND AND  
AT NIGHT THE WATER IS FULL OF SMALL  
SHRIMP LARVAE, MILLIONS OF THEM, WITH CIGAR  
MINNOWS EATING THEM CONSTANTLY. SEVERAL  
TINY OCTOPUS ON THE PORTS.

MADE A DIVE WITH SONNENBURG AT  
1956 ON ARAWAK TO CHECK ON Hookup  
OF DIVING LIGHTS. IN AT 2034 WITH NONE  
HOOKED UP. DR. SONNENBURG GOT BEHIND  
MOLE HAULING SOME POTS AND THE ARAWAK  
COULDN'T CATCH HIM UP. TOOK A SHOWER  
AND SECURED FROM WORK AT 2130. LOTS  
OF WORK AHEAD TOMORROW

30 AUGUST - MONDAY

0600 - HOLD REVEILLE ON MYSELF.

BREAKFAST ABOUT 0700, STARTED DAYS  
WORK AT 0800. CARPENTER HOLD QUARTERS,  
GAVE OUT PLAN OF DAY, OPEN TO SUGGESTIONS,  
+ WATCH LIST. PLAN IS THIS:

0700 - Reveille

0730 - Chow

0800 - QUARTERS

0800 - 1130 DIVING

1200 - Chow

1300 - 1400 SIESTA

1400 - 1800 DIVING

1830 - Chow

2200 - TAPS

THE ARAWAK VACUUM #2 APPEARED TO  
BE BAD BUT CHECKED OUT TO BE A BINDING  
POINTER ON THE GAGE.

0918 - TUCKFIELD AND I STARTED TRANSFERRING  
PRESSURE POTS AND BRINGING FULL MK4  
BOTTLES IN FROM CAGES, REPLACING THEM  
WITH EMPTIES. THROUGH BY 0930.

1012 - TUCK AND I BRINGING IN P. POTS.

1018 - FINISHED WITH THAT TASK.

1023 - TUCK AND I LEFT TO HOOK UP THE  
6 DIVING LIGHTS TO THE PICTAIL DROPPED  
DOWN THE BENTHIC TUBE. HOOKED UP 5.  
#6 HAS A BAD PLUG AND WILL HAVE TO  
BE FIXED.

1048 - CONCLUDED JOB + CAME IN TO GET WARM.

1109 - TUCK AND I LEFT TO HOOK UP PRESSURE  
POT. COMPLETED BY 1118.

AN OEC TV CAMERA WAS SENT DOWN IN THE  
CAGE AND I INSTALLED IT ALONGSIDE THE SCRIPPS  
LAB AREA CAMERA. BOTH SCRIPPS CAMERAS HAVE  
BURRS NOW AND WITHOUT THE BENTHIC LAB FOR  
FOCUS CONTROL, GIVE POOR PICTURES. IT IS



AMAZING HOW TIME GETS AWAY FROM YOU ...  
AND NOW THE LITTLE TASKS PILE UP.

THERE IS NO SENSATION OF PRESSURE AND  
THE WATER DOESN'T SEEM TO BE AS COLD NOW  
AS IT FIRST APPEARED. I HAVE ONE OF THE  
DICK HANG SUITS BUT I GET CHILLED AFTER  
30-40 MINUTES IN THE WATER (NO VEST USED)  
THE SECRET OF GETTING IT ON IS TO SOAP DOWN  
GOOD WITH PHILKOTER UNTIL SLIPPERY.

SECURED DAYS WORK AT 1830 FOR CHOW.  
DID LITTLE ODD JOBS ~~UNTIL~~ UNTIL 2200  
WHEN I HIT THE SACK.

31 AUGUST - TUESDAY

UP AT MIDNIGHT FOR THE 0000 - 0300 WATCH.  
TOOK ENGINEERING AND ENVIRONMENTAL DATA, LOGGED  
THE BOTTLE (OPEN TO OUR REGULATORS) PRESSURE  
AS: #1 B.B.B. - 1500, #10 H<sub>2</sub> - 1500, #10 O<sub>2</sub> - 1250  
KRASBERG IS DOING AN OUTSTANDING JOB OF  
KEEPING O<sub>2</sub> AT 4.25%. BUT THE SOLENOID  
CHATTERS AND IS VERY ANNOYING.

REVEILLE HELD AT 0700. STARTED DAYS WORK  
AT 0800. IT SEEMS TO ME THAT KEEPING THE  
PRESSURE POT MOVING IS OCCUPYING ABOUT 50%  
OF OUR <sup>DIVING</sup> TIME. THE AIRWAK IS TURNING OUT TO  
BE A GOOD RG EXCEPT FOR A GUY HAVING  
TO TEND HIS LINES TO PREVENT ENTANGLEMENT.

YOU CAN HEAR THE COMPRESSORS SO YOU  
WOULD KNOW IMMEDIATELY IF A FAILURE OCCURRED.  
ONE THING THAT IS NOTICEABLE IS THE RAPIDITY  
OF BREATHING DUE APPARENTLY TO THE COLD  
WATER. EVERYBODY HUFFS + PUFFS ON THE  
AIRWAKS. AT 1105 I STARTED MY DIVING  
ACTIVITY WITH EATON AND WE GOT 48  
MINUTES ON THE AIRWAK DOING POT JOBS AND  
SETTING UP THE STRENGTH TESTS. AT ABOUT  
1130 CAPT.'S BOND + MAZZONE DROPPED IN  
FOR CARPENTER'S SWEARING IN CEREMONY AS  
COFFMAN SHIPPED OVER. THEY HAD ABOUT 8 MINUTES  
IN THE LAB. IT FELT FUNNY SEEING THEM  
HURRY TO GET AWAY WHEN WE HAD SO MUCH  
TIME TO SPARE.

WHEELER SENT DOWN A SPARE PLUG AND  
SEALING TAPE SO I CAN REPLACE THE BAD  
PLUG ON #6 DIVING LIGHT. ALSO SENT THE  
TRICKLE CHARGER DOWN FOR THE BATTERY IN  
THE PTC. BATTERY IS EMERGENCY PW'R FOR  
SCRUBBER. IT POWERS AN INVERTER.

WORD PASSED ABOUT 1700 THAT THE BENTHIC  
LAB IS BEING LOWERED. WE WATCHED THE  
PORTS PRETTY CLOSELY FOR THEY ARE OUR  
WEAK SPOT. LOTS OF AUDIBLE CREAKING AND  
CLANKING AND THE WATER GOT ALL STIRRED  
UP. TOOK 4 TRIES BEFORE THE RELEASE



MECHANISM WORKED PROPERLY. BENTHIC IS NOT IN SIGHT BUT IS ABOUT 60 FT ON A BEARING OF  $120^\circ$  RELATIVE FROM THE SHARK CAGE. WE WILL LOCATE AND HOEK IT UP TOMORROW MORNING. ATE SUPPER AT 1830. SECURED WORK AT 2000. THE BUTTLE READINGS ARE NOW: #1 BIBB-1450 PSI, #1  $O_2$ -800 & #10 HE-800 (USED 700 PSI TO BLOW DOWN TRUNK LEVEL.) WE ARE USING  $O_2$  AT A PRETTY GOOD RATE, AN EXPLANATION OF WHICH I FEEL IS: THE COLD WATER AND LOTS OF MOLE HAULING CAUSES RAPID BREATHING ON THE AIRWAK. SO FAR WE'VE HAD TO CHANGE LIOH 2 TIMES. SUNDAY AFTERNOON THE  $CO_2$  WAS HIGH ENOUGH THAT IT WAS NOTICEABLE, CAUSING INCREASED BREATHING RATE. SO WE CHANGED. THEN TODAY ABOUT NOON  $CO_2$  WAS ABOUT 2.5% (SURFACE EQUIV.) AND AGAIN BREATHING DISTRESS WAS FELT. SO WE CHANGED. RELIEF (PERHAPS PSYCHOLOGICAL) WAS FELT WITHIN THE HOUR.

A NOTE: EVERYONE'S APPETITE IS RAVENOUS AND SNACKING GOES ON ALMOST CONTINUALLY. CANNED ORANGE DRINK (CARBONATED) IS DELICIOUS IF NOT FIRZY.

THE TILT,  $6^\circ$  UP ANGLE,  $6^\circ$  DOWN PORT &  $8^\circ$  ON THE SKEL IS VERY TROUBLESOME. SOME

FOOD SPILLAGE HAS OCCURRED AND MOST DISHES SLIDE TO SOME EXTENT. NON-SKID TABLE TOPS WOULD BE NICE.

I STUCK MY HAND IN THE BOTTOM TODAY UP TO MY WRIST AND ITS SPONGY MUD. LIKE SPONGE RUBBER.

173 2300 NOW + RACK TIME. NO SIGSTA TAKEN AS NO TIME FOR IT.

1 SEPT. - WEDNESDAY

0720 - REVEILLE FOR ME  
QUARTERS AT 0800, PLAN OF THE DAY EXPLAINED AND WORK COMMENCES. EATON & CARPENTER LOCATED BENTHIC ABOUT 30 FT DUE SEBD OF SHARK CAGE. WE HAULED UP THE 2 CABLES FROM IT THRU THE TUBE. TUCK AND I USED THE AIRWAKS ABOUT 1048 TO RUN A TAUT LINE TO THE BENTHIC, BRING IN BAD DIVING LIGHT PLUG, AND TRY TO FREE THE POWER CABLE FROM SURFACE THAT RAN THE DIVING LIGHTS DURING LOWERING SO THAT IT CAN BE HAULED FREE. THE CABLE IS FOULED BADLY. BOTTOM VISIBILITY IS ABOUT 2 FEET TODAY. SOME SURFACE ROUGHNESS PROBABLY AT FAULT, ACCORDING TO MURRAY. THE VISIBILITY UP ON THE CONNING TOWER IS ABOUT 20 FEET.



LAST NIGHT DR SONNENBURG TOLD US THAT  
SOME CHANGES HAD BEEN FOUND IN OUR EEG  
TRACES, SINCE WE'VE BEEN ON THE BOTTOM.  
NO IDEA AS TO WHETHER GOOD OR BAD CHANGES.  
STILL FEEL THE SAME. TUCK & I SLEPT  
FOR LUNCH AT 1150. STARTED CHECKING  
OUT THE BENTHIC STUFF RIGHT AFTER CHOW.  
NO SLEETA TODAY & IT LOOKS LIKE  
THERE JUST WON'T BE TIME FOR SLEETA'S  
AROUND HERE. THIS IS DAY 5 AND NO TESTS  
HAVE BEEN RUN YET. LOTS OF PHYSIOLOGICAL  
DATA TAKEN. I'M GETTING USED TO GIVING  
BLOOD, DOESN'T BOTHER ME AT ALL. MY  
PULSE IS RUNNING HIGH, 90-100 BUT  
BLOOD PRESSURE IS NORMAL. FEEL GOOD AND  
BEING COOPED UP DOESN'T BOTHER ME AT  
ALL.

SOME TROUBLES WITH BENTHIC. THEY  
CAN ONLY GET 2 OUT OF 4 CHANNELS OF  
TV. ONE OUTSIDE CAMERA HAS A  
SHORT TO GROUND IN IT. COMMUNICATIONS  
IS GOOD. USED THE AQUALSONIC SURFACE  
UNIT QUITE A BIT TODAY IN COMMUNICATING  
WITH TOPSIDE AS ALL COMMUNICATIONS  
IS GOOD LINKS WERE REALLY BUSY. TO-  
MORROW WE'LL FIRE OFF THE SIMMER  
TYPE AQUALSONICS UNITS HOPEFULLY ON  
THE MK 6.

WORKED WITH SYSTEM CHECKOUT  
BENTHIC AND TROUBLE SHOOTING JOBS  
UNTIL 2100. IT APPEARS TO ME THAT THE  
GUYS VOICES ARE GETTING LOWER.  
WE HAVE NO TROUBLE UNDERSTANDING  
AND TOPSIDE CAN UNDERSTAND OUR  
AUDIO BETTER THAN PARN THE SC  
UNSCRAMBLER.

2 SEPT THURSDAY

0700 REUBILLE & BREAKFAST

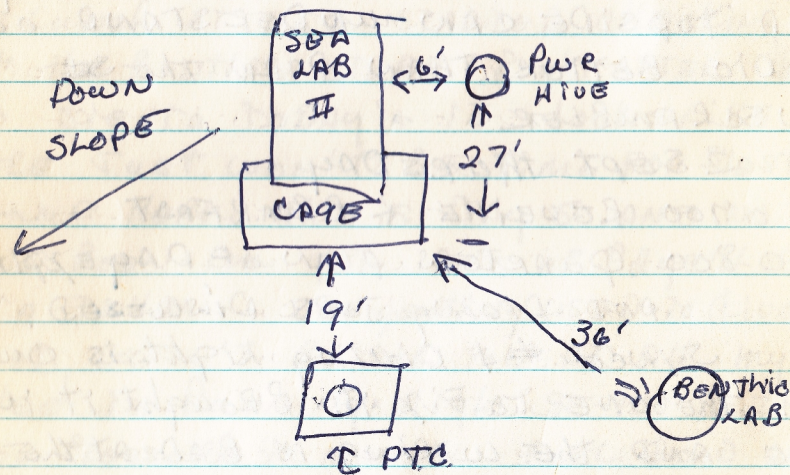
0800 QUARTERS PLAN OF DAY EXPLAINED  
AND DIVING JOBS DISCUSSED.

SINCE #1 DIVING LIGHT IS OUT,  
I'M THE ONE TO FIX IT. BROUGHT IT IN-  
SIDE AND THE WIRING IS BAD AT THE  
BULB CONNECTION. PUT NEW BULB IN  
& REWIRED IT. WORKS GREAT NOW.  
RECHARGED THE TRICKLE CHARGER FOR  
THE PTC. THIS KEEPS THE EMERGENCY  
BATTERIES FOR THE SCRUBBER ALWAYS  
CHARGED UP, PUT THE T.C. INSIDE 2  
PLASTIC BAGS & WEIGHTED SAME.  
HELPED AS DIVER TENDER AND  
SETTING UP BQC FOR ANOTHER COMMUN-  
ICATION CHANNEL TO TOPSIDE. I KEEP  
BUSY CONSTANTLY ON ONE LITTLE JOB  
AFTER ANOTHER.

ABOUT 1600-1700 SKID AND I MAKE



OUR DIVE, WE HOOKED UP 2  
PRESSURE POTS, LOADED 6 MK6 BOTTLES  
FOR TOPSIDE CHARGING AND MEAS-  
URED THE DISTANCE TO POWER HIVE,  
BENTHIC LAB & PTC.



WE GOT THE T.C. & SWAM TO  
THE PTC, AS I SWAM UP INTO THE  
MOUTH I SAW MANY FISH FLOPPING ON THE  
SURFACE AND UPON CLIMBING IN, I SAW  
DEAD FISH COVERING THE BOTTOM OF THE  
PTC. I TOOK ONE SHORT SNIFF TO  
CONFIRM MY SUSPICIONS THAT THE AIR  
WAS POISONED, WENT BACK ON THE AIRWAY,  
PUT THE TRICKIE CHARGER ON THE TOP  
SHOULDER & WE LEFT. RETURNED TO  
SEA LAB. AFTER SHOWERING & PUTTING  
ON DRY SUITS, AIR SUPPORT WENT ON

WATCH UNTIL 2100. SECURED MY WORK  
AT 2100, SAT AROUND CHATTING, FILLING  
OUT DAILY REPORT, LETTER WRITING, ETC.  
UNTIL 2330 WHEN I HIT THE RACK. VERY  
TIRED.

3 SEPT. 71R DAY

0600 - TACK & I HAVE THE 0600-  
1100 WATCH. MADE BREAKFAST FOR THE  
CREW ABOUT 0730.

0800 QUARTERS - DIVING SCHEDULE  
EXPLAINED. TODAY'S MY DAY FOR BLOOD  
[EVERY OTHER DAY] CARPENTER & I  
HAVE SOME WEIRD ENZYME CHANGES BUT  
NO ONE IS SURE WHAT IT MEANS. MY  
PULSE HAS BEEN ABOUT 100 SINCE I'VE  
BEEN DOWN BUT MY BLOOD PRESSURE  
IS NORMAL. TEMP RUNS ABOUT 99.6  
ORAL.

WE TURNED ON #2 O<sub>2</sub> & CHECKED  
IT AT THE REGULATOR. A/ HALL VALVE  
IS LEAKING PRETTY GOOD & ABOUT  
400 PSI HAS LEAKED INTO THE LAB.  
KRASBERG SAYS O<sub>2</sub> % IS 5.1 %, NO SWEAT.  
FRED JOHLER REPLACED  
THE VALVE AND NO LEAKS FOUND

#1 H<sub>2</sub> — ON LINE HE MAKE-UP

#1 O<sub>2</sub> — M.T.

#2 O<sub>2</sub> — 1425 PSIG (STANDBY O<sub>2</sub> MAKE-UP)



#6 O<sub>2</sub> - 1750 PSI (on-line O<sub>2</sub> MAKE UP)

#1 BIBB - 1300 PSI (EMERGENCY BREATHING SYSTEM)

4 SORTIES MADE TODAY ON MK6,  
1 ON ARAWAK. HOOKING UP POTS,  
LOADING BOTTLES IN CAGES, DOING  
STRENGTH TEST & HOOKING UP TRICKLE  
CHARGER IN PTC. THANK GOSH GOT IT  
IN TON. TUCK CLEANED OUT ALL THE  
DEAD FISH WHICH WAS A NASTY JOB.  
AFTER CLEANUP, WORKED UNTIL  
2100 HELPING BENTON CONTROL  
TROUBLE SHOOT THEIR T.O. CAMERA  
CONSOLE. ONLY 1 OF 4 CHANNELS WORKS.  
TOO TIRED TO WORK ANY LONGER.  
I'VE BEEN TIRED ALL DAY AND I  
NEED TO UNWIND. LOOKS LIKE NO  
REAL REST UNTIL WE COME UP,  
WHENEVER THAT IS. THERE ARE SO  
MANY FISH AROUND THE DIVING  
LIGHTS AND ITS FASCINATING TO WATCH  
THEM. TUCK AND I SAW A RED HORNED  
STAR FISH ON THE PTC, WITH 12 ARMS  
AND 2 FT ACROSS. I THOUGHT IT WAS  
A BIG OCTOPUS AT FIRST. KINDA SCARED  
ME. WELL, ITS 2330 AND I'M POOPED,  
TO BED MAN

4 SEPT SATURDAY

0700 REUNITE FOR CREW

0800 QUARTERS AND DIVE SCHEDULE  
EXPLAINED.

MORNING SPENT ON LITTLE ODD JOBS FOR  
ME, DUE TO SOME IRON-UP TAKE STUDIES,  
DIVING SCHEDULE DELAYED SOMEWHAT.  
MURRAY'S WEATHER STATION IS OUT THERE  
SOMEWHERE AS IS THE T.O. TRIPOD AND  
THE WAY STATION. WILBER & MURRAY  
ARE TO LOCATE ALL 3. THEY FOUND ONLY  
THE WEATHER STATION. SONNENBURG  
AND TUCK FINISHED GETTING THE DEAD  
FISH OUT OF THE PTC AND AIR FLUSHED  
IT 4 TIMES. THEIR ARAWAK HOSES  
GOT FOULED IN THE TROLLEY LINE AND  
THEY THOUGHT THEY HAD THEM FREE, BUT  
WHEN THE TROLLEY WAS HAULED UP, THE  
ARAWAK VEST ALMOST GOT HAULED UP  
UNTIL WE STOPPED TOPSIDE. COFFMAN  
AND I WENT OUTSIDE TO UNSNARE  
THE HOSES. I HAD TO ASCEND TO THE  
UPPER SAFE DEPTH ALMOST TO FREE MY  
HOSE BUT I WAS CAREFUL TO WATCH  
MY HEIGHT. VISIBILITY WAS VERY  
POOR. SPENT ABOUT 25 MINUTES  
FREEING AND UNWINDING HOSES.  
ALMOST NO LIGHT AT THIS TIME OF



Day, 6 PM. Finally, my vest  
un zipped so we had to come in.  
The ARAWAK VEST DESIGN IS VERY POOR.  
The REGULATOR IS IN A BAD PLACE,  
The VEST IS IMPOSSIBLE TO ZIP  
UP WITHOUT SOME ONE ELSE'S HELP  
AND IS LIABLE TO UNZIP AT ANY  
MOMENT. ONE HAS TO WATCH HIS NOSES  
ALL THE TIME AND PREVENT SNARLING.

SHOWERED AFTER SORTIE - 1755 TO 1822,  
ATE SUPPER & STARTED INSTALLING THE  
NEW CAMERA NEW CAMERA SENT FROM  
TOPSIDE. PLACED IT LONGSIDE THE  
PRESENT ONE MOUNTED IN THE ENTRY-  
WAY. SOME MINOR TROUBLES BUT FINALLY  
GOT IT IN. IT SEEMS THAT THERE ARE  
3 CO-AX LEADS TO TOPSIDE IN  
UMBILICAL AND ONLY 2 ARE WORKING  
SINCE OUR TV ENTERTAINMENT IS ONE,  
WE WILL HAVE TO SHARE TIME WITH  
TOPSIDE, LETTING THEM HAVE 2 CAMERAS  
DURING DAYLIGHT, AND 1 AT NIGHT  
WHILE WE WATCH T.V.

THE WATER HAS RISEN IN THE  
TRUNK TO ABOUT 4" OVER TOP OF  
TRUNK. WE HAVE NO LEAKS SO  
MUST BE N<sub>2</sub> ABSORPTION, I GUESS,  
SURFACE BLEW IT DOWN WITH AIR.

Got a POT TODAY WITH CANDY, FRUIT,  
COLD CUTS, CHEESE AND OTHER  
GOODIES. SURE FEELS GOOD TO GET  
SOMETHING LIKE THAT. ALMOST LIKE  
CHRISTMAS REALLY.

I WORKED UNTIL 2100 WHEN I  
HAD TO GO ON WATCH UNTIL 2400.  
PRETTY POOPED AFTER WATCH SO I  
HIT THE RACK.

5 SEPT. SUNDAY

HOLIDAY ROUTINE TODAY. NO  
SCHEDULED WORK EXCEPT FOR THE  
DUTY SECTIONS.

1100-1600 TACK & I HAVE THE  
WATCH. GENERAL CLEANUP, REPLACED  
LION CANISTERS, MOUNTED BLOWER  
IN ENTRYWAY TO DRY OUT NOSES &  
VESTS. COFFMAN WARNED ALL NOSES  
WITH PHISONEX. SAID THEY WERE GETTING  
RIPE. SOF THE GUYS HAVE EAR FUNGUS NOW.  
EATON, SONNENBERG, CARPENTER, MURRAY AND  
CLARK. I AM GETTING IT IN MY RIGHT EAR.  
HOPE IT DOESN'T GET WORSE. GOODBODY  
DIES, ANYWAY.

SOME GENERAL NOTES OR OBSERVATIONS  
AFTER 1 WEEK ON THE BOTTOM:

1. SPACE - THIS LAB IS NOT BIG



ENOUGH FOR 10 MEN, EXCEPT IN THE BERTHING AREA. THE ENTIRE WAY IS COMPLETELY INADEQUATE TO HANDLE DIVING OPERATIONS. THERE ISN'T ENOUGH SPACE TO STORE THE BOTTLES OR SET UP THE RIGS.

2. BEING ISOLATED ISN'T BOTHERING ANYBODY AND THE MORALE IS HIGH. JUST THE LOGISTICS ALONE CONSUMES LOTS OF TIME.

WELL, ENOUGH LOG FOR THIS DAY.

6 Sept. - MONDAY

0700 - ROSSVILLE

0800 - QUARTERS + DIVE PLAN DISCUSSED

TOM CLARK AND I MADE A MK6 DIVE. I WAS A BUDDY DIVER WHILE HE COUNTED BOTTOM CRITTERS. WE WENT 30 METERS SOUTH WHICH IS UP ON A HILL ABOUT 180 FT DEPTH. SAME OLD MUD BOTTOM. THEN WE WENT NORTH 15 METERS FOR CORE SAMPLES. THE DIVING LIGHTS WERE VISIBLE FOR 15 METERS NORTH. REMOVED A T.U. CAMERA TO BE SENT TOPSIDE. ALSO HELPED BENTHIC FOCUS THEIR CAMERA. THE T.U. CAMERAS COWK OUT FAST DOWN HERE FOR SOME REASON. SECURED WORK AT 1900

TUESDAY MISSING

8 Sept - WEDNESDAY

0600 - 1100 TUCKFIELD AND I HAD WATCH. COOKED BREAKFAST FOR THE CREW. AT ABOUT 0930 MADE A CALL TO MDC. EATON, TUCKFIELD + I TALKED TO CAPT. MILLER, DR. JASPER + T. ODUM. SURE WAS NICE TO CALL + TALK TO THE GUYS BACK THERE. EATON + I TOOK TALBERT'S CURRENT METER OUT 100 FT TO INSTALL IT BOY, WHAT A LARGE HONEY DUDGE IT WAS. I CAN SEE WHY HE WAS ANXIOUS TO GET US TO INSTALL IT FOR HIM. WE ONLY GOT 2 OF THE 3 GUY WIRES RIGGED BEFORE OUR TIME RAN OUT. WE LEFT AT 1440 + RETURNED AT 1520. GAS ~~OUT~~ OUT 2650, GAS IN 1100. VISIBILITY WAS ABOUT WAS ABOUT 10 FEET TIL IT GOT STIRRED UP THEN IT WAS ZERO. THE PLACE WE LOCATED IT FOR HIM IS  $\frac{2}{3}$  OF THE WAY TO MURRAY'S WEATHER STATION. THE SLOPE IS PRETTY STEEP AND HARD TO WORK ON YOU KEEP SLIDING DOWN THE HILL. SECURED WORK AT 1800. AT 2000 WE ALL HAD INTERVIEWS WITH T.U. AND NEWS MEDIA. I TALKED FOR 10 MINUTES WITH CHUCK DILLINGER OF THE L.A. TIMES. IT WAS INTERESTING TALK. TO BED. TOMORROW IS ANOTHER DAY.



9 Sept. THURSDAY

0700 - REUEILLE FOR THE CREW

0800 - QUARTERS & PLAN OF THE DAY  
DISCUSSION. AFTERWARDS A MESSAGE  
ON THE ELW. FROM G.B. SAYING THAT  
NO MORE GOODIES OR FAVORS WILL BE  
SENT DOWN, ORDERS FROM HIS ADM. IT SEEMS  
THAT ON ONE OF THE SUPPOSEDLY CONFIDENTIAL  
QUESTIONNAIRES WE DAILY FILL OUT. FOR  
RADLOFF, C.C. HAD STATED THAT HE WAS  
CHANGING HIS OPINION FROM XCLNT TO  
GOOD FOR BKFT. SINCE HE WAS TIRING  
OF OMELETS AFTER 5-6 DAYS IN A ROW,  
THIS MADE THE PAPERS + NEW (T.V.) CLEAR  
BACK TO D.C. & N.Y. HE IS VERY ANGRY  
ABOUT IT, WITH GOOD REASON. CC HAD A  
BIG DISCUSSION WITH G.B., WHO SAYS WE  
SHOULD EAT ONLY WHATS ON THE MENU  
AND NOT GOODIES, WE ARE SUPPOSED TO  
BE TRUTHFUL WHEN ASKED WHAT WE'D  
LIKE BUT WE PROBABLY WON'T GET IT.  
THE DIET OR RATHER MENU IS HEAVY  
ON BEEF STEW AND SPAGHETTI + MEAT  
BALLS, A BIG FLAD OVER NOTHING,  
REALLY. TUCK AND I WERE LAST TEAM  
OF DROPS. WE WENT OUT TO THE  
CURRENT MOTOR AND PLUMBED IT UP,  
THEN CAME BACK IN. DIVE LASTED FROM

1718 TO 1735. SARE GOT COLD. BUT  
GOOD VISIBILITY OUT ON THE SLOPE.  
WE COULD JUST MAKE OUT THE GLOW  
OF DIVING LIGHTS 100 FT. AWAY. WORKED  
ON A DIVING LIGHTS. AND DIDN'T SECURE  
UNTIL 1930. I'M GETTING ORIENTED OUT ON  
THE SLOPE A LITTLE, ENOUGH TO CEASE  
BEING NERVOUS ABOUT BEING 150 FEET OUT  
THERE. IN FACT, THE FUN IS STARTING  
JUST BEFORE WE LEAVE.

10 - SEPT - FRIDAY

0000 - 0300 HAD THE MIDWATCH.  
SET UP 2 MK6 AND TOOK SOME READ-  
ING. WATCH PASSED FAST.

0700 - REUEILLE FOR CREW

0800 - QUARTERS FOR MUSTER-  
TURNED OFF ALL MIKES AND DISCUSSED  
THE FOOD + BREACH-OF-CONFIDENCE  
PROBLEM. C. THINKS THAT THINGS WILL  
QUIET DOWN IN A COUPLE OF DAYS  
TUCK AND I WENT OUT ON  
SORTIE #69 AT 1018 RETURNING AT  
1032. I MADE A POT RUN AT 1045 -  
1050 AND WE WENT OUT AGAIN FROM  
1122 TO 1133, WE SET UP DR. MILLER'S  
SOUND LOCALIZATION EQUIPMENT,  
MAINLY 3 HYDROPHONES. NAMPERO



GREATLY BY POOR VISIBILITY AND  
AND SCALPIN EVERYWHERE. HAVEN'T  
WORN A HOOD IN 3 DAYS. GOT NAUSEATED  
FOR SOME REASON. DR. SONNENBURG  
GAVE ME SOME PILLS WHICH CLEARED  
THE NAUSEA. I'VE STARTED ANTICIPATING  
COMING UP ON SUNDAY NOW. CHANNEL  
FEVER I GUESS YOU'D CALL IT.

THE PTC WAS RAISED AT ABOUT  
1800 TO THE S/U FOR A SCRABOON OF  
THE INSIDE. THE FISH ODOR IS STILL  
OUTRIO. THE AQUASONIC TRACER WAS  
WIPE OUT. WON'T BE LOWERED AGAIN  
UNTIL TOMORROW MORNING. A VERY  
SMOOTH LIFT OFF. I WATCHED IT GO  
FROM THE AFT PORT HOLE. VERY LITTLE  
SURGE AND ONLY ABOUT A 90° TURN.  
SHOULD BE A SMOOTH RIDE SUNDAY.  
SECURED WORK AT 1830.

SATURDAY MISSING -

SUNDAY - SEPT 12

0700 REUBEN

0800 BARTH, ILEY + BUCKNER ARRIVED

1330 CARPENTER STUNG BY SCALPIN

1518 - EATEN GOES TO PTC FOR RIDE UP  
I FOLLOW.

1555. - ALL TEAM [7 MEN] IN D.D.C.  
WITH HATCH DOGGED

1600 - DECOMPRESSION. STARTED.

SEPT 13 - MONDAY

STILL GOING ON DECOMPRESSION -  
2400 - DECOMP. ENDS, OUT OF CHAMBER  
SHOWER - SHOOT THE BREEZE WITH  
O'DUM, MILLER, ETC UNTIL 0200, TO BED

SEPT 14 - TUESDAY

0700 REUBEN

0800 - PRESS CONFERENCE, TALKS WITH  
VARIOUS PEOPLE, ETC. DE BRIEFING.

1200 - SECURED FOR THE DAY - VERY  
TIRED.

SEPT 15 - WEDNESDAY

1300 - REPORTED TO NAUEN HOSPITAL  
FOR MEDICAL CHECK + PSYCHOLOGICAL  
DEBRIEFING.

2000 FINALLY THRA, WENT HOME

SEPT 16 - THURSDAY

SPENT DAY WORKING ON LOG,  
GETTING THINGS READY FOR T.V. SHOW

SEPT 17 - FRIDAY

0800 REPORTED FOR WORK GETTING  
ORGANIZED TO ASSUME DUTIES



~~1130 - EATON FOR T.V. SHOW~~

1130 - EATON AND I WENT HOME TO GET DRESSED + READY FOR T.V. SHOW (NIGHTLIFE)

1400 LEFT DRIVING FOR HOLLYWOOD

1830 REPORTED TO BEO-WIL HOTEL FOR BRIEFING ON T.V. SHOW

2000 STARTED T.V. SHOW

2200 - FINISHED, ON WAY BACK TO S.D.

Sept 18 - SATURDAY

0930 REPORTED FOR WORK

DAY SPENT IN MK 6 LOCKER OVER-HAULING REGULATORS, JAMMING BOTTLES, ETC.  
1700. SECURED WORK FOR THE DAY

SEPT 19 SUNDAY

NORMAL HOLIDAY ROUTINE

SEPT 20 MONDAY

0800 REPORTED FOR WORK

WORKING IN MK 6 LOCKER. HAD DUTY THAT NIGT. WORKED UNTIL 2130

SEPT 21 TUESDAY

0800 STARTED WORK

WORKING IN MK 6 LOCKER

SECURED AT 1600

SEPT 22 WEDNESDAY

0800 STARTED WORK

WORKING IN MK. 6 LOCKER - CLEANING REGULATORS, JAMMING BOTTLES, ETC.  
SECURED AT 1700.

SEPT 23. THURSDAY

0800 STARTED WORK

WORKED WITH CARPENTER TRANSLATING DATA, ETC. MUST MAKE REPORT TO PAULI BY NEXT WEEK.

SECURED AT 1800

SEPT 24 FRIDAY

0800 STARTED WORK

WORKING IN MK 6 LOCKER. HAD THE DUTY. SECURED AT 2300. GAZED ALL P.T.C. BOTTLES.

SEPT 25 SATURDAY

08 STARTED WORK - 3 GUYS FROM #3 WENT DOWN. SECURED AT 2100

SEPT 26 SUNDAY

0800 STARTED WORK - HELPING



WILBUR ON TIE HE BANKS FOR THE  
PTC. + DDC. 2<sup>ND</sup> TEAM CAME UP SAFELY  
- 3<sup>RD</sup> TEAM WENT DOWN SAFELY -  
OVERHAULING REGULATOR & FILLING  
BOTTLES, ETC.

SECURED AT 1630

Sept 27 Monday

0800 STARTED WORK IN MK 6  
LOCKER SECURED AT 1600

Sept 28 ~~WEDNESDAY~~ TUESDAY

0800 - Started work

WORKED IN MK 6 LOCKER, OVERHAULING REG-  
ULATORS + ETC., GETTING THEM READY TO  
GO BACK TO MDL. THE CHARGING LINE IS  
INSTALLED TO THE BOTTOM NOW. WE CHARGED  
ON THE BOTTOM FOR 75 MINUTES. HAVE THE  
DUTY TODAY. SECURED WORK AT 2130

Sept 29 - WEDNESDAY

0800 - STARTED WORK.

WORKED IN MK 6 LOCKER ALL DAY.

SECURED AT 1630.

I MISSED SATURDAY, SEPT 11 IN  
COPYING MY BOTTOM LOG. I WILL INSERT  
IT HERE.

11 Sept - SATURDAY

THURSDAY - Sept 30

0800 - Started work MK 6 locker

Secured at 1600

FRIDAY - 1 Oct.

Duty

0800 - started work - MK 6 locker

Secured at 2300

Saturday - 2 Oct

DIVE

0730 started work MK 6 locker

Secured at 1600

3 Oct - Sunday - Holiday

Monday - 4 Oct

- Duty

0800 started work MK 6 locker

Secured at 2200.

Tuesday - 5 Oct

DIVE

0800 started work MK 6 locker

1600 - Secured.



6 Oct - Wednesday  
0800 - started work MK 6 locker  
1800 - Secured

7 Oct - Thursday  
0800 - started work MK 6 locker  
1600 - Secured

8 Oct - Friday  
0800 - started work  
1600 - Secured

9 Oct - Saturday - Duty  
0800 - 2300 MK 6 work, getting OOL ready  
etc,

10 Oct - Sunday - 3RD Team up  
0700 - 1800 - working in MK 6, Helping on  
O<sub>2</sub> Banks - 120 ft dive with Corda to  
look at lowering of biddle for S.L.II.

11 Oct - Monday - 200 ft air Dive 13 MIN  
0800 - 2000 with EXTON ON LAB 4-20 7-20  
lots of water work getting lab up.

12 Oct - Tuesday -  
0830 - Got UNIT CITATION, POKE GEAR TO  
LANS BEACH WITH SEALAB

13 Oct - Wednesday  
to 0700 - on duty standing by diver - water in  
2100 - lab, cleaned patty, deaired water

14 Oct - Thursday  
Packing, getting car + driving to L.B.

15 Oct - Friday  
0730 - 1600 - helping Peter Meg out lab,  
Sating gear for MCL.

Saturday - 16 Oct - Holiday

17 Oct - Sunday - Holiday

18 Oct Monday -



July	HOURS	O.T.	TOTAL
10	3 1/2		3 1/2
12	1/2		4
13	1/2		4 1/2
16	1/2		5
19	1/2		5 1/2
21	1 1/2		7
22	1/2		7 1/2
26	1/2		8
27	1/2		8 1/2
31	7		15 1/2
AUG 1	4		19 1/2
3	1/2		20
4	1/2		20 1/2
5	1/2		21
6	1/2		21 1/2
7	6		27 1/2
9	1/2		28
10	1/2		
11	1/2		29
12	3 1/2		32 1/2
13	3		35 1/2
14	7 1/2		43
15	2 1/2		45 1/2
16	1/2		46
17	5 1/2		51 1/2
19	2		53 1/2
20	1/2		54



DATE	HOURS O.T.	TOTAL
AUG 21	10	64
22	5	69
23	4 1/2	73 1/2
24	1 1/2	75

BOTTOM HOURS		TOTAL
28	14 1/2	14 1/2
29	12 1/2	27
30	5	32
31	8	40
Sept 1	4	44
2	4	48
3	6	54
4 SAT	15	69
5	5	74
6	2	76
7	7	83
8	3	86
9	2 1/2	88 1/2
10	4 1/2	93
11 SAT	13	106
12 SUN	7 1/2	113 1/2
13 PDC		
17	?	
18 SAT	7	120 1/2
20	4 1/2	125
24	6	131
25 SAT	12	143

DATE	HOURS O.T.	TOTAL
26	8	151
28	4 1/2	155 1/2
out 1	6	161 1/2
2 Sat	8	169 1/2
4	5	174 1/2



